The Impact of Treated Wastewater on the Sustainable Agricultural Development In Marj Ibn Amer In The City Of Jenin "Alfalfa crop"

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Abstract

The study identified the impact of treated wastewater on the sustainable agricultural development in Marj Ibn Amer in the city of Jenin. The descriptive analytical approach in addition to mathematical calculations were utilized relying on an analysis of the previous literature in the subject area along with conducting interviews with the involved parties in the process of treating wastewater.

Moreover, the study explored the potential of using wastewater treated in specialized stations in irrigating some crops as an alternative method of irrigation to increase the quantity of water available for agriculture in the field of crops irrigation, precisely Alfaalfa (scientific name: Medicago sativa) and some types of trees, as well as the possibility of benefiting extra production in winter to inject underground wells indirectly or even exploiting it in recreational projects.

The feasibility study revealed an economic benefit that can be achieved from alfalfa crops, basically, through utilizing the treated water and comparing it to the irrigated production considering the scarcity of fresh water and believing that the treated water had no nutrients.

The study concluded that the use of treated wastewater is feasible and of economic return. The study recommended continuing the research in this field as it improves and increases the usage of wastewater in irrigating several crops. In addition, treated wastewater contributes to water and food security through increasing the size of irrigated agricultural lands and defining the crops of high returns through performing feasibility studies and providing additional information regarding the future of agriculture in case of increasing the quantities of treated wastewater as well as benefiting from the previous experiences and experiments in growing new crops depending on utilizing treated wastewater as irrigation source.